

In the claims:

Please substitute the following full listing of claims for the claims as originally filed or most recently amended.

1. (Previously presented) A method of adjusting carrier mobility in semiconductor devices comprising the steps of
 depositing a metal or combination of metals to contact one of a first or second transistor gate structure, and
 alloying said metal or combination of metals and said transistor gate structure to form a first stressed alloy within said transistor gate whereby a first stress is created in at least one corresponding channel of said first or second transistors without producing a stress in at least one channel of the other transistor of said first or second transistors.
2. (Original) A method as recited in claim 1 in which said alloy is a silicide.
3. (Original) A method as recited in claim 1 in which first transistor and second transistor are of opposite conductivity types.
4. (Original) A method as recited in claim 3 comprising further the steps of
 depositing a metal over said first transistor gate and not over said second transistor gate to alloy with a first electrode to form said first stressed alloy causing a first stress to be applied in at least one channel of said first transistor, and
 depositing a metal over said second transistor gate and not over said first transistor gate to alloy with a second electrode to form a second stressed alloy causing a second stress to be applied in at least the channel of said second transistor.
5. (Original) A method as recited in claim 4 in which said first stressed alloy and second stressed alloy apply opposing stresses.
6. (Original) A method as recited in claim 5 in which
 said first stress caused by said first stressed alloy exhibits stress in at least the channel region of said first transistor opposite to the stress provided by said first stressed alloy, and
 said second stress caused by said second stressed alloy exhibits stress in at least the

channel region of said second transistor opposite to the stress provided by said second stressed alloy.

7. (Original) A method as recited in claim 6 wherein the carrier mobility is regulated by applying tensile stress to at least one channel of said first transistor while applying compressive stress to at least one channel of said second transistor.

8. (Original) A method as recited in claim 1 wherein said depositing step comprises
depositing a first metal to a portion of said gate electrode material in said first transistor to form a third alloy at the lower region of the gate electrode proximate to the channel of said first transistor; and

depositing a second metal over said first transistor gate electrode to form said first stressed alloy within first transistor gate in the upper region of the gate electrode.

9. (Original) A method as recited in claim 8 wherein said depositing step further comprises
depositing a third metal to a portion of said gate electrode material in said second transistor to form a fourth alloy at the lower region of the gate electrode proximate to the channel of said second transistor; and

depositing a fourth metal over said second transistor gate electrode to form said second stressed alloy within second transistor gate in the upper region of the gate electrode, whereby said second stressed alloy creates a second stress to the channel area of said second transistor.

10. (Original) A method as recited in claim 9 wherein the first stressed alloy and second stressed alloy are of opposing stresses.

11. (Original) A method as recited in claim 10 wherein the first transistor and second transistor are of opposite conductivity types.

12. (Original) A method as recited in claim 11 wherein

said first transistor is an nFET wherein said first stressed alloy is compressive creating said first stress wherein first stress is tensile, and

said second transistor is a pFET wherein said second stressed alloy is tensile creating said second stress wherein second stress is compressive.

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